

Datasheet

- field of application: measurements, lift and crane positioning and warehouse technology
- up to 10 measuring devices can be managed via RS422 or Profibus interface
- 2 digital outputs can be configured through different switch positions. An additional output dispatches a signal if an error occurs
- status display with four LEDs



Mechanical Data

Type	WDL1-L10	WDL1-L30	WDL1-LH10	WDL1-LH30
Variation	standard		with heating	
Dimension	150 x 80 x 55 mm			
Laser Dot				
at 10 m	Ø8 mm			
at 50 m	Ø25 mm			
at 100 m	Ø40 mm			
Material				
Housing	aluminum			
Laser	visible, red			
Weight	690 g		720 g	
Measuring Range				
on Reflecting Foil	~0.5 ... 500 m			
on Natural Surface	0.05 ... ~65 mm			
Accuracy	±1 mm	±3 mm	±1 mm	±3 mm
Repeatability	±0.3 mm	±0.5 mm	±0.3 mm	±0.5 mm
Resolution	0.1 mm			
Operating Temperature	-10°C ... +50°C		-40°C ... +50°C	
IP-Rating	IP65			
Accessory	configuration software supports most common languages and can be requested at any time free of charge. further available on request			

Electrical Data

Type	WDL1-L10	WDL1-L30	WDL1-LH10	WDL1-LH30
Power Supply	9 ... 30 VDC		24 ... 30 VDC	
Measuring Rate	< 200 Hz			
Error Due to Analog Output	±0.1 %			
Connection	-> cable gland			
Interfaces				
standard	-> 1 serial interface RS-232 7 RS-422 or SSI -> 1 analog output 0.4 ... 20 mA, programmable -> 3 digital output 2 programmable, 1 error indicator			
optional	-> 1 digital input for external trigger -> Profibus			

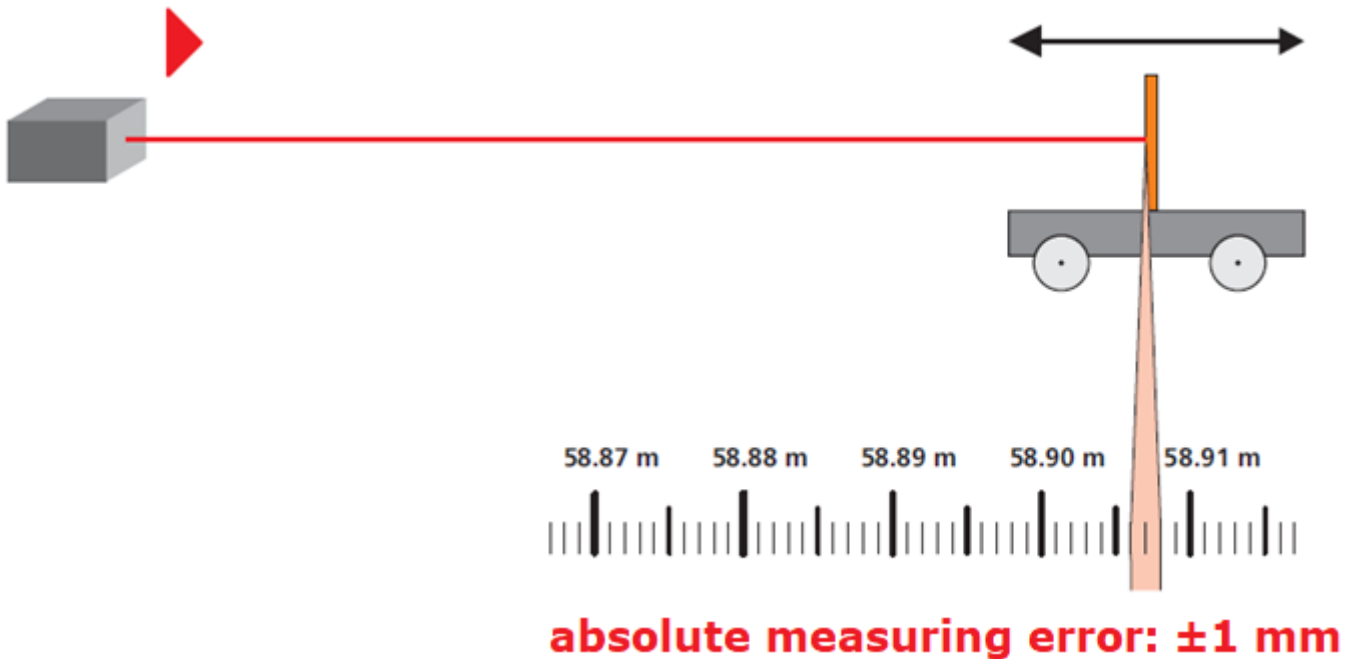
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Fast and Precise

The **WDLX-L** is an optical maintenance-free measuring device which you can use to detect positions of inaccessible objects with natural or reflecting surfaces and of objects with very high surface temperatures – equally easy and exact are absolute measurements of distances up to 500 m, even in harsh surroundings. Additionally, the device is placed inside a robust aluminum housing (IP-rating: IP65) and optionally equipped with a heating system. Thanks to this, the **WDLX-L** is suited for outdoor applications and conducts reliable measurements even in extremely low surrounding temperatures of up to -40 °C.

State of the art laser technology gives the device a unique accuracy of 1 mm. This specified accuracy is maintained throughout the whole measuring and temperature range. Even changes of the target object do not impair the accuracy.

The typical measurement repeatability lies at 0.3 mm.



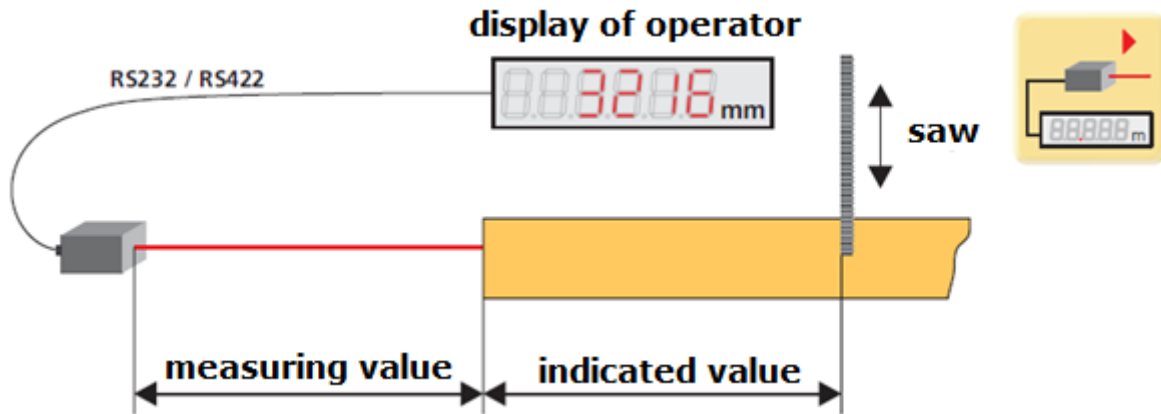
Another advantage of the **WDLX-L** device is fast position detection of moving objects. These properties make the **WDLX-L** the preferred measuring device when it comes to object measurements and object monitoring. For example, tunnel profiles can be detected exactly or spatial geometries and objects can be captured during the determination of production data. This facilitates the efficient production of stairs and storages usually required in wood, stone and glass industry but also in the shipbuilding industry.

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Flexible Value Output

The measured value output of the **WDLX-L** has a flexible layout. There is one serial interface RS232, RS422, SSI and one analog output available as standard.

You can connect an external display directly via serial interface RS232 or RS422 to view the measuring result with millimeter accuracy. Afterwards gain, offset and display format can be configured easily.



Additionally, you can connect the measuring device through a 15 pin D-sub plug. Alternatively, you can run a cable directly into the device through a cable gland and connect it to the internal terminals. Optionally the connection to a Profibus-Master is also possible.

